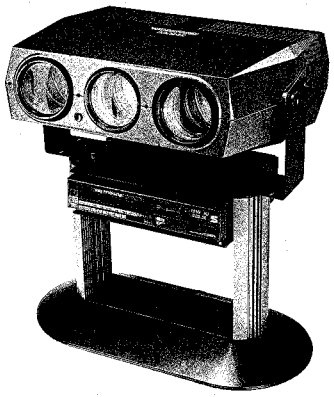
sèleco



VIDEOPROIETTORE PROFESSIONALE SVT-150
PROFESSIONAL VIDEOPROJECTOR SVT-150
PROFESSIONELLER VIDEOPROJEKTOR SVT-150
VIDEOPROJECTEUR PROFESSIONEL SVT-150

MANUALE D'USO INSTRUCTION MANUAL BEDIENUNGSANLEITUNG MANUEL D'USE

We are very pleased that you have chosen the Seleco professional VIDEOPROJECTOR which we are sure will satisfy you in every aspect. To obtain the best from your Videoprojector please read this instruction manual carefully.

WARNING:

Do not open or remove the cover of your Videoprojector as there is a very high electrical current generated inside, in the region of 29 kilovolts, which in case of accident can be fatal.
An authorized Seleco service agent must always be referred to, should there be any problem.

Seleco S.P.A. declines all responsability for injury to persons or damage caused due to non observance of the above warning and the other instructions contained in both the instruction and use manuals.

PROFESSIONAL SELECO VIDEOPROJECTOR SVT 150 SERIAL N° _____

Date of puchase _____ dealer _____

Address of dealer street _____ N° _____

Town _____ City _____ (___) tel.: _____

AFTER SALES + REPAIRS, SUGGESTED SELECO SERVICE AGENTS:

Name _____ Street _____

Town _____ City _____ (___) tel.: _____

Name _____ Street _____

Town _____ City _____ (___) tel.: _____

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1.0 GENERAL ADVICE AND PRECAUTIONS

Keep the packaging of the videoprojector,which due to its strength may be used again should you need to transport the equipment.

1.1 INSTALLATION

To achieve maximun performance of the videoprojector we strongly recommend that the installation, necessary connections and initial tunning of the appliance is made by a qualified service centre.
A good colour TV reception requires an efficient aerial. The manufacturer declines all responsability in case of malfunctionning of the set which results from a source outside of the receiver.

1.2 LOCATION

The room in wich the videoprojector is placed should be able to reasonably darkened (as a cinema).
Keep the videoprojector in a well ventilated area but not exposed to direct sunlight or close to heat source.
If it is installed outside care must be taken to protect it from the elements, particulary humidity.

1.3 CLEANING

Lenses: the surface of the lenses can be very easily scratched. It is sufficient to periodically clean the external surface of the 3 lenses. The internal surfaces and the projection tubes are excellently protected due to their design.
If possible, at the end of each use, cover the 3 lenses with the caps supplied. This is to reduce to a minimum their exposure to smoke and dust in the air.
In the same way as for a camera lens, it is advisable to use specialised optical cleaning tissue. It is possible to use a very soft cloth which has been carefully washed to remove any excess filaments. The cloth should be folded into a pad after being soaked in optical cleaning fluid.
Slowly wipe without excessive pressure or rubbing too long in the same area.

Cabinet: the cabinet of the videoprojector is built with special material which does not require frequent cleaning, although it is advisable to dust it regularly. Do not use acetone or other solvents.
If liquid is spilt into the equipment unplug it from the mains immediately and call your local service agent.

1.4 PRECAUTIONS

If for any reason you maintain a fixed image in projection (ie. screen test, tuning grid, still image) for over 5-6 minutes reduce as much as possible the brightness and contrast, in order not to stamp the image on to the projection tubes.

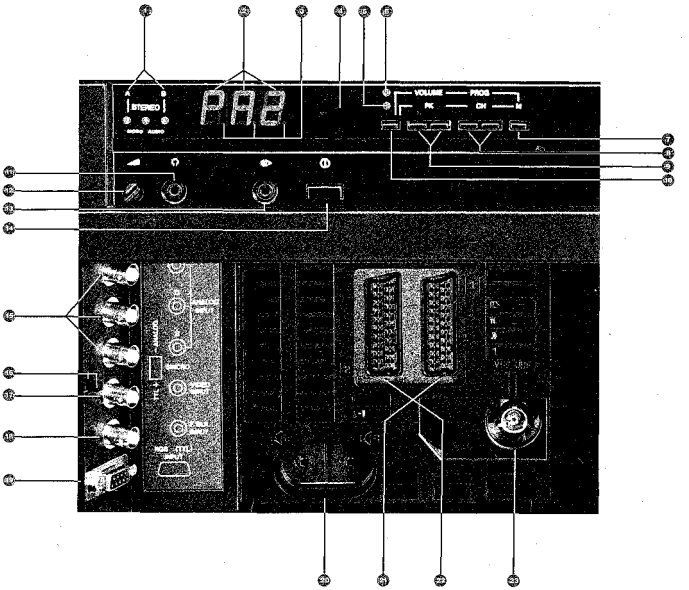
1.5 NOTE FOR UNITED KINGDOM

Electrical connection
IMPORTANT
The wires in this mains lead are coloured in accordance with the following code:

Blue-neutral **Brown-Live**

Your videoprojector set is fitted with a moulded plug and cord, the plug moulded onto the cord incorporates a fuse.
For replacement use a 13 A BS 1362 fuse - only ASTA approved fuses should be used.
The fuse cover/carrier must be replaced in the event of changing the fuse - the plug must not be used if the cover/carrier is lost. A replacement cover/carrier can be obtained from you local retailer.
If you fit your own plug, the colours, of the wires in the mains lead of your set may not correspond with the markings identifying the terminals in your plug.
The correct connection should be made as follows:
Connect the blue (neutral) wire to the terminal in the plug which is marked with the letter «N» or coloured black.
Connect the brown (live) wire to the terminal which is marked with the letter «L» or coloured red.
Do not connect either wire to the earth terminal of a 3 pin plug.
Having fitted your plug, care should be exercised to ensure that the plug you have cutt-off is safety disposed of as this plug presents shock hazard if accidentally inserted into a 13 A socket outlet.

The set operates at 240V ± 10% and does not require a voltage stabilizer.



1. Led Audio Mode
2. Alfanumerical Display
3. Display led indicators
4. InfraRed sensor for remote control
5. Led function Peaking/Channel
6. Led function Volume/Programmes
7. Memory button
8. Double button +/– for Program/Ch
9. Double button +/– for Volume/Pk
10. Selection button of function 5 and 6
11. Headphone socket
12. Headphone volume control
13. Remote Control
14. Mains on/off button
15. BNC connector for RGB analogue input
16. Syncs TTL/Analogue deviator
17. BNC connector for videocomp/Syncs input
18. BNC connector for Blanking
19. 9 pin connector for computer input
20. External loud speaker sockets
21. SCART socket 1
22. SCART socket 2
23. TV Aerial socket

2.0 REAR PANEL

The panel at the rear of the projector comprises of all the necessary components to establish the function and operative commands, the input and output signals connector and the convergence and geometry correction panel. TABLE 1 illustrates left section of the rear panel, excluding the correction panel.

2.1 OPERATIVE CONTROLS

A series of buttons offering the selection of functions volume (audio), programme, peaking/channel and to memorize some of the functions.
The alfanumerical display ㊷ has got 3 display caracters (of which the first indicates a letter and the other two numbers) visualizing the programme currently in operation.
The display also shows 3 light points ㊸, the significance of which will be explained later. The other leds ㊹ give the operative position of the audio signal.
There is also the on/off mains button ㊺, the remote control socket ㊻ to connect up to 150 m. distance by cable. A third control, thus allowing the possibility of operating the machine from an adjacent room.

2.2 INPUT/OUTPUT

Socket ㊼ allows the connection of a headphone of which the sound level is regulated by ㊽ the volume control. ㊾ and ㊿ are the SCART sockets (or PERITELEVISION) to connect external video appliances. Socket (51) is at norms and also accepts SUPER VHS signals. There are also the TV antenna socket (52) and the external loud speaker sockets (53). In a separate panel are situated the BNC connectors (54) for RGB Analogue input, (55) is the BNC connector for VIDEOCOMPOSITE/SYNCS INPUT, (56) is the BNC connector for BLANKING. Socket (57) allows an external computer to be connected, of which the specifications are indicated in the appendix. Deviator (58) allows the selection between the syncronism of TTL or RGB analogue inputs.

2.3 TUNING PANEL

Not represented in TABLE 1, the tuning panel is described in another part of the manual.
In order to avoid colour unalignment and subsequent loss of projection quality, it is advisable not to adjust the tuning without skilled knowledge.

2.4 VISUAL DISPLAY

Also called 'Alfanumerical display' (59), this indicates with letters, numbers and symbols the function currently in operation. The significance of the various codes are explained below.

CODE

P1 ◀ ▶ P25	Programmes, or memory cells on which the channels of the TV stations are memorized (per tuner model)
PA1	Allows the input of SCART socket no. 1 (49)
PA2	Allows the input of SCART socket no. 2 (50)
P26	Under display PA1 o PA2. Visualizes the signal of standard NTSC 4.43.
-S-	Allows the acceptance of S-VHS signal through scart no. 1
P3	Allows the RGB+SYNCS. input (54) (56) (57) or TTL (58).
P29	Programme suitable for VCR with output in RF, generally under channel 36 (however follow the instructions of your VCR), finer tuning than the frequence of the VCR. It is also possible to receive TV stations.

P1_	Wait for a number from 0 to 9 to call programmes from 10 to 19.
P2_	Wait for a number from 0 to 9 to call programmes from 20 to 29.
Ptt	On display Ptt. abilitates Teletext or Televideo mode.
C00 ◀ ▶ C99	To select channels of the television emissions.

2.5 DISPLAY LED INDICATORS

Three points of light ❁ at the base of display ❁ offer the following indications:

All lights switch on when the projector is in stand by.

The command and regulation of stereo is abilitated.

Three led ❁ indicates in which Audio mode the videoprojector has been programmed.

Trasmission is in mono

Trasmission is in stereo

Mono aural in wide

Stereo wide

Led ❁ switched on indicates that the adjoining functions: Volume and Programmes (research of no. of programmes) are abilitated.

Led ❁ switched on indicates that the adjoining functions: Peaking and research of no. of channels are abilitated.

NOTE: These two leds are alternatively inserted by means of button ❁ F.

2.6 ON SCREEN DISPLAY

Some indication regarding the operation of research or regulation in course, are projected on the screen for the duration of 5 seconds.
The following various indications concern the NO. OF PROGRAMME, NO. OF CHANNEL, TIME, PEAKING MEMORIZING, BRIGHTNESS, CONTRAST, COLOUR, MUTE, VOLUME, HIGH and LOW TONES, STEREO BALANCE.

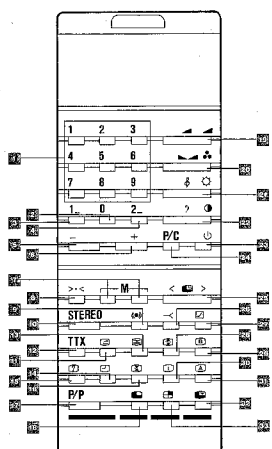
3.0 REMOTE CONTROL

Only some of the functions can be controlled from the rear panel, whilst the I.R. Remote control supplied can operate all of them with the exception of mains on/off (operated by button ⏻) and the peaking regulation.

To activate, the remote control must be pointed in the direction of sensor ⏻ on the rear panel, towards the front sensor situated under the lenses or directly towards the screen, causing a mirror reflection.

From the remote control you can operate all the functions described on table 2, only with the videoprojector supplied with tuner. With the MONITOR model, which is supplied with the same remote control, some of the functions are not in operation.

1 Numerical key board to request programmes, channels and teletext pages
2 Recall button for monitor programme and/or teletext pages.
3 Recall button for programmes 10 to 19
4 Recall button for programmes 20 to 29
5 Button to decrease by one unit programmes/channels , teletext page and nderpage
6 Button to increase by one unit programmes/channels, teletext page and nderpage
7 Memorization button
8 Recall button for reference value (normalization)
9 Wide button (expansion of sound)
10 Button to abilitate stereo command
11 Button to superimpose teletext images over Tv picture
12 Teletext button
13 TV button to remove the teletext image momentarily, remaining in TTX ode
14 Clock and underpage programming button
15 Button to reveal masked lines (quiz)
16 Stop button to block the underpage updating
17 P/P button*
18 Inversion of PIP/TV image button*
19 Volume button
20 Colour/balancing (in stereo mode) regulation button
21 Brightness tone (in stereo mode) regulation button
22 Contrast/bass tone (in stereo mode) regulation button
23 Switch off button (in stand-by)
24 Programme/channel change button
25 Fine tuning/size regulation button for PIP
26 Bilingual command/forced mono button
27 Muting button
28 Teletext semipage button (enlargement of characters)
29 Autoscan button*
30 Teletext idex page, recall button
31 Progressive image, stop button*
32 PIP image, stop button*
33 PIP image, shift button*



* Operative only with appliances with PIP 90 board.

3.1 DISTANCE SENSOR

When it is not possible to operate from the projection room a 'Distance Sensor' is available as an option.
This is connected to socket ⑳ on the rear panel with a three pin cable for up to a distance of 150 m..

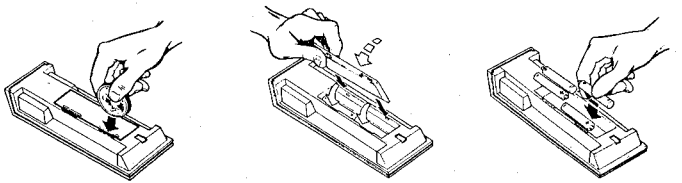
The commands sent are visualized on the display lights and the relative information is shown on the screen for the duration of approx. 5 seconds.

3.2 REMOTE CONTROL BATTERY REPLACEMENT

If a diminution of the remote control efficiency is noticed it is advisable to replace the four batteries contained inside. It is suggested to use the same type of batteries.

When introducing the new batteries, be careful to observe the polarity, if the batteries are inverted the remote control will not be damaged, but will be inoperative.

Make the substitution as described in the diagram below.



In the following section of the manual instructions for use of the videoprojector are described, having assumed that it has been installed, tested and aligned by a competent service centre. It is connected to the mains 220/240 volts, to the T.V. aerial, the loud speakers and to the relevant peripheral appliances: VCR (VHS or S-VHS), Videodisc, computer etc..

The instructions are given for the complete model with tuner. For the Monitor version, without tuner, the same instructions are accurate except some of them are inoperative: reception and memorising TV stations.

4.0 SWITCH ON

With the appliance completely switched off, push button 41, if the button is pushed for an instant, the three lights come on 43, if the button is pushed for a few seconds, on display 42 P1 appears.
In the last case the projector selects programme P1 on which will have been memorized a TV station.

4.0.1 STAND BY

To maintain the appliance not in operation, but in STAND-BY, awaiting instructions, push 24 on the remote control. On the back panel the three points of light 43 will appear.

4.0.2 SWITCH ON FROM STAND BY.

From stand by the appliance is made operative by pushing one of the numerical buttons on the remote control, which corresponds to the programme you wish to see.

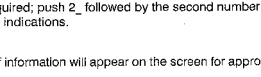
NOTE:
If the videoprojector is not in use for any length of time it is advisable to switch it off using button 41.

4.1 CHANNEL SELECTION

4.1.1 FROM REMOTE CONTROL:

There are 25 set programmes of the videoprojector on which TV emissions can be memorized, this means P1 to P25.
Push one of the buttons 1 to 9, the appliance will tune into the appropriate channel. To reach programs P10 to P19, first push 1_ followed by the second number required; push 2_ followed by the second number required to reach P20 to P25.
On display 42 will appear the relative indications.

NOTE:
At any programme request, a series of information will appear on the screen for approx. 5 secs., as the following example:



The above example indicates tuning to programme 1 in which has been memorized channel 18. With button 21 and/or 20 it is possible to change the programme by one unit up or down, the newly selected programme information will appear on the screen.

4.1.2 FROM REAR PANEL

Be sure that Led 43 is switched on: if it is not,push button 41 F once only. Push button 40 with the sign + to increase the number of the programme shown on display, or with the to decrease the programme number. Again in this case the new programme information will appear on the screen.

4.2 CHANNEL SELECTION AND MEMORIZATION

The selection and subsequent memorization can be made only from the remote control. With this procedure it is possible to register in the memory cells of the 25 programmes reserved for TV channels, any channel or modify the existing positions of them.

Establish on which programme number (between P1 and P25) you wish to memorize a particular TV channel. Press the relative numerical button.

Push button P/C on the remote control (on the display panel will appear the letter C followed by two numbers) and select with the numerical board the new number of the channel, if already known, otherwise with button and/or it is possible to scan, channel by channel, from 0 to 99.
Having localized the desired channel, you can proceed if necessary, to fine tune, by means of buttons pushing it from one extreme to the other.

4.2.1 MEMORIZATION

Memorizing the selection chosen, push consecutively the two buttons M .
As a confirmation, on the screen will be projected the information:

4.3 AUDIO VIDEO RANGE CONTROLS

In the videoprojector it is possible to intervene on the tuning of audio/video range. As previously, the appropriate information is shown on the screen. If the vertical index is complete, this indicates that the range has been tuned to is maximum value.
Diminishing the range will cause the vertical index to decline.

NOTE:
If the new tuning has not yet been memorized, it is possible to return to the previous set value by pushing button .

The tuning, except for the example in paragraph 4.3.4, can be made using the remote control.
Buttons allow two types of tuning.
In the first method you can tune the audio volume, the colour, the brightness and the contrast.
In the second method, by first pushing button , you can once again tune audio volume, the balancing and high and low bass.
By pushing number again, you revert to the first type of tunning described above.
Below you will find examples of information shown on the screen for the duration of approx 5 secs., when carrying out the tuning procedure of:

VOLUME: Regulating the intensity of the loudspeakers

COLOUR: Regulating th colour of the image

BRIGHTNESS: Regulating th brightness of the image

CONTRAST: Obtaining the contrast the light and dark areas

VOLUME: Regulating the sound of the loudspeakers

BALANCING: Regulating the intensity of the sound from channel right and left.

TREBLE: Regulating the level of high frequency

BASS : Regulating the level of low frequency

* In case of stereo transmission the word STEREO will appear on the screen display.

4.3.5 NORMALIZED.

The appliance is produced with optimal tuning, both for audio and video, already preprogrammed. These regulations are common for all 25 programmes, although they can also be modified as you wish, but always in the same way for every programme. To return to the previous tuning it is sufficient to press button 28.
To memorize it is necessary to press buttons 7 on the rear panel.
The possible tunings available in normalized function are: Volume and Peaking from the back panel (see 2.1 and 2.5.3) and using the remote control, volume, balance, Bass, treble, colour, contrast, brightness. This memorization can only be made from the rear panel.

4.3.6 PERSONALIZED OR PERSONAL MEMO.

Colour, Brightness and Fine tuning of the videoprojector can be pretuned, programme by programme, without any limitation of range.
The personalization can only be made from the remote control and memorized, programme by programme, by pressing simultaneously the two buttons 28.

4.4 AUDIO MUTING

If for any reason, it is necessary to reduce the sound level immediately, for example to answer the telephone, press button 27.
On the screen will be projected the information:

Which will remain in view until the previous situation is returned to by pressing button 27 again.

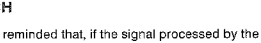
4.5 MONO/STEREO BI-LINGUAL FUNCTIONS

The special design of the videoprojector offers audio reproduction at high fidelity and quality, furthermore the possibility of creating a 'STEREO EFFECT' even in mono.
'SOUND EXPANSION' both in stereo and mono produce a dilightful sound. When the transmission is predisposed it is possible to choose the 'SECOND LANGUAGE'.

4.5.1 MONO STEREO SWITCH

Referring to paragraph 2.5.2 you are reminded that, if the signal processed by the videoprojector is in stereo, the two extreme led A and B on the rear panel are switched on, whilst if the signal is in mono, only the central led will be switched on.

The stereo reception can be 'forced' into mono by pressing button [24], on screen will appear:



By pressing [24] the reception will be returned to stereo

4.5.2 COMMAND TO WIDEN OR EXPAND THE SOUND

Use button [25] to achieve the pleasing effect of enlargement of the sound, both in Mono and Stereo. The information projected on the screen for approx 5 secs. will be:

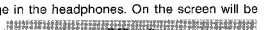
in Mono

in Stereo

4.5.3 BILINGUAL MODE.

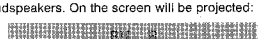
If the signal processed by the videoprojector is in the form of two sound channels, not Stereo but bilingual, the two sources can be listened to separately, one from the loud speakers, the other from a head phone connected to socket [41] on the rear panel. The sound level of the headphones is adjusted by means of knob [42].
The three Led [43] on the rear panel indicates:

☼ • • Principle language in the loud speaker, secondary language in the headphones. On the screen will be projected:



With button [26] you can invert the positions and the Led will indicate:

• • ☼ Principle language in the headphones, secondary in the loudspeakers. On the screen will be projected:



Also under these conditions it is possible to create the Wide effect or Expansion of the sound by pressing button [26]. The signals displayed will be as follows:

☼ ☼ • language 1 in loud speakers, 2 in head phones

• ☼ ☼ language 1 in head phones, 2 in loud speakers

4.6 PROGRAMME 29 VIDEO-RECORDER IN RADIO FREQUENCY

This programme contains particular technical abilities which make it possible to better utilize a VCR with Radio Frequency output. Programme 29 is operative only if the videoprojector is equipped with the tuner.
The video output of the VCR has to be connected to the socket of aerial [40] Tab. 1. Generally this VCR operates on channel 36: it is then necessary to memorize channel 36, after having had the necessary fine tuning, on programme 29. See the instructions for your VCR.
It is in any case possible to use channel 29 with other channels dedicated to TV stations.
To reach programme 29 from the remote control press 2_ followed by button 9.

5.0 LOW FREQUENCY VIDEO

The videoprojector incorporates different types of connectors to allow the use of apparatus which generates video signals in low frequency:
Consumer or professional VCR, Video Cameras, Videodisc, Video games, Computer and others.

The connections in low frequency video (from Tab. 1 are identified by ⑰ ㉑ ㉒) accept the video systems commonly used, such as: PAL, SECAM, NTSC 3.58 NTSC 4.43.
Consequently it is possible to project with appliances and tapes using different systems other than PAL.

5.0.1 BNC INPUT

The BNC ⑮, ⑯, ⑱ are reserved for RGB + Sync signals and operates by programme 28, which will be explained later.

If during the videoprojection you intervene in the video tuning, the information projected on the screen will also indicate the system used, in other words, the display will also indicate PAL, SECAM, NT1 for NTSC 3.58, NT2 for NTSC 4.43.

Only with systems NTSC 3.58 AND 4.43 is the tuning of HUE and TINT carried out by using remote control button ㉕.

5.0.2 CANNON INPUT FOR COMPUTER

The 9 pin connector ㉓ is brought into use by programme 28, it is necessary to connect signals in TTL, generally coming from a personal computer.

5.0.3 S-VHS INPUT

The videoprojector is prepared to accept signals from VCR in S-VHS, with separate croma and luminance, which allows reproduction in colour in very high definition and quality. In this case the VCR must be connected to SCART 1 ㉑ or to the BNC socket ⑰ luminance and BNC ⑱ (Red) for croma.

5.1 SCART AND BNC CONNECTIONS

The videoprojector is equipped with two input sockets via Scart connectors, this is for video equipment in low freqency which has the same type of connection and which corresponds to that mentioned in the appendix. This equipment can be VCR, Video camera, Video games, Videodisc etc.
With ref. to Tab. 1 the two sockets are identified as follows:
Socket 1 ㉑
Socket 2 ㉒

Signals to the two sockets cannot be projected simultaneously.
The Scart connector also accepts signals RGB + SYNC Analogue. The two Scart sockets also have output video, therefore it is possible to record the signals in projection.
The VCR is divided into two categories: one which is equipped with the correct internal connection which brings AUTOMATIC COMMUTATION TENSION, the other does not have this connection.

NOTE:
The appliances connected to SCART and BNC ⑰ sockets can operate in one of the four video systems: PAL, SECAM, NTSC 3.58 and NTSC 4.43, with automatic connection to the first three systems, whilst the NTSC 4.43 (NT2) requires utilization of programme 26, as later described.

5.1.1 APPLIANCES WITH INTERNAL ABILITATION

It is possible to connect 2 VCR to sockets 1 and 2: the first appliance which comes into PLAY determines its insertion independently of the programme in use at that moment, with the exception of programme 26.
- To insert the other VCR, press button 0 (zero) on the remote control and prepare the VCR for PLAY.
- By pushing button 0 again the previous input is returned to play
- To leave this programme, ask for another programme other than 0 or P26.

5.1.2 APPLIANCES WITHOUT COMMUTATION OF TENSION

Push button 0 on the remote control once only to abilitate socket 1 to connector 21. The information displayed will be P01 .
Push button 0 a second time to abilitate socket 1 to connector 22. The information displayed will be P02 .
To leave this programme, ask for another programme other than 0 or P26.

5.1.3 VIDEO COMPOSITE TO BNC

Many professional video apparatus, videocamera or VCR, have video output in LOW FREQUENCY on BNC connector.
Via this socket it is therefore possible to project the signals.
BNC ⓫ is also identified as VIDEO IN/SYNCS.
From the point of view of the programme input is comparable to the input 1 on SCART. To abilitate see instructions § 5.1.2.

NOTE
If the two apparatus on BNC and SCART are switched on simultaneously, the two signals will mix resulting in a confused projection. It is therefore not advisable to connect to BNC VIDEO IN and SCART 1 simultaneously.

5.2 PROGRAMME 26 NTSC 4.43

The videoprojector has been developed to operate in the four video systems.
The particular system in operation is displayed on the screen for 5 secs. when the brightness, contrast or colour buttons on the remote control are pressed.

If the videosystem in use is NTSC 4.43 (NT2) programme 26 is required, before proceeding to the operation described in para. 5.1. This is the case should the input signals be via SCART or BNC VIDEO IN. With this system the information on display will be NT2.

You are reminded that in both systems, NTSC 3.58 and 4.43, the correction of HUE and TINT, is made by pressing button ⓭ on the remote control, as with 'FINE TUNING'.

5.3 PROGRAMME 27 S-VHS

Apparatus with the new S-VHS System which present LUMINANCE AND CROMINANCE separately, must be inserted by SCART ⓰ or BNC ⓫ . The connections of which are described in the appendix.
Ask for programme 27: on display and on the screen the information shown will be S-5 .

5.4 PROGRAMME 28 RGB ANALOGUE AND TTL

Call programme 28.
The RGB analogue signals must be connected to BNC ⑫, which is 3 connectors respectively marked R, G, B.
The Sync. analogue signals. V + H are applicable to BNC ⑰.
BNC ⑭ accepts Blanking signals.
Bring deviator ⑯ towards the word ANALOGUE.

5.4.1 SIGNALS IN TTL

TTL signals are RGB signals in digital form, generally coming from a personal computer.
The connection is made via the 9 pin standard connector ⑬. The characteristics of the computer abilitate it to work with the videoprojector and the description of the contacts are explained in the appendix.
The synchronism can be positive or negative.
The vertical frequence of the signal can be 50 Hz or 60 Hz with automatic recognition.
Deviator ⑯ must be moved towards TTL ±

6.0 TELETEXT AND CLOCK FUNCTION

The videoprojector is equipped with a TTX board which allows the projection of teletext pages subject to:
1° The videoprojector is complete with tuner and has in projection a TV station which offers this service.

2° The monitor version of videoprojector, without tuner, as a VCR connected via SCART or .
This VCR must reproduce a TV station which offers this service.

The teletext board can memorize 8 pages (the following 6, the previous page and the one in view).

The memory is not only for the page, but also for the underpage from which any pages are denoted.

6.1 CLOCK

If directly or indirectly, the videoprojector is operating with a suitable station, press the remote control button and in the top right hand corner of the screen the time will be shown.

6.2 TELETEXT

The control is always made via the remote control, subject to there being one of the two conditions described above. Explained below are the functions of each button, the symbols for which are to the left of the description.

6.2.1 TELETEXT BUTTON TTX

This is a command with a double function.
The first push brings the system into teletext mode and on display will appear PTT.
With a second push the previous TV programme is returned, cancelling all teletext functions, with the exception of the clock.

6.2.2 INDEX PAGE BUTTON

This button requires page 100, which generally is the index page and cancels the command of the programme page.

6.2.3 NUMERICAL KEYBOARD

The buttons from 0 to 9 can be used to select the mumber of the page and to set the programme of the page.

6.2.4 SUPER-IMPOSING BUTTON

Produces super-imposing of teletext pages over re-existing TV programmes.
Press again to cancel effect.

6.2.5 SEMIPAGE BUTTON

Devides the page into two semipages, double height. The first two touches produce the described effect and present the two half pages; with the third touch the normal dimension of page is restored, presented in full.

6.2.6 REVELATION BUTTON

Allows viewing of masked rows containing solutions of a quiz or game.

6.2.7 TV BUTTON

Allows viewing of TV programmes whilst staying in teletext mode.

6.2.8 STOP BUTTON

One page is stopped: blocks the automatic change to the underpages. Press again to cancel the effect or request a new page.

6.3 TELETEXT MODE

Having tuned to a TV station which is suitable to receive teletext, press buttons .
With the numerical buttons, press the number (generally three digits) of page you are interested in.
If the teletext programme consists of a sequence of pages, press button o advance the page or button to return to the previous page. Remember that the memory contains 6 pages in advance of the one requested.
See the description of the other buttons to obtain their particular functions. Press again to leave the teletext mode.

6.3.1 UNDERPAGES

To give an example of a required page with underpages:
Page 306 with 6 underpages marked 1/6 to 6/6. Press button to block or stop. After certain time, press button to advance the underpages and/or button to move them backwards.

6.3.2 PROGRAMMING UNDERPAGES

To read a particular page, for example:
At the request of page 306 the indication received is 3/6, but the page desired, without going through the complete cycle, is 1/6.
Press button , in the top right hand side of the screen will appear the letter T, followed by 4 zeros.
Than press the number of the desired page, with 4 digits. In the case f 1/6, this will be 0001.
Press button , after a few seconds the number of page required will appear.
Press button again to visualize the page.
To leave the programming mode press button .

7.0 P.I.P FUNCTION (PICTURE IN PICTURE)

This option (which can be plugged into the videoprojector at any time) via the remote control allows the simultaneous rojection of 2 images, coming from 2 different sources: one internal from a T.V. programme and another from the input SCART 1 or 2. The second image is placed in a window of small dimension, the size of which can be varied and is positionable in any one of the 4 corners of the screen.

7.0.1 BUTTON P/P

By pressing this button, in the top left hand corner will appear a window with the image transmitted from an external source connected to the videoprojector via the scart socket. If there is no connection to the SCART socket, of an external source, the image will be black. To leave the P.I.P. mode press button again.

7.0.2 INVERSION PIP/TV BUTTON

By pressing this button you obtain the inversion of the two images. The result being that the image which was in the window now appears in the full screen and viceversa.
Press the button again to restore the initial image.

7.0.3 PIP SHIFT BUTTON

By pressing this button it is possible to shift the window image through the four corners of the screen.

7.0.4 PIP SIZE IMMAGE BUTTON

By pressing the > part of the button you obtain an enlargement of the image, by up to approx. 1/4 of the screen.
By pressing the < part of the button you obtain a reduction of image size to approx. 1/20 of the screen.

7.0.5 PROGRESSIVE STOP BUTTON FOR PIP IMAGE [A]

By pressing this button, when the P.I.P is the normal size, you obtain an effect of progressive image (up to 3 images, with 2 touches of the button, in the normal size and up to 6 images, with 5 touches of the button, in the small size) with an image (the last one requested) in movement and the others in freeze.
With another press of the button you return to the original condition.
It is possible, with button , to choose the image that you want to see in movement.
Pressing > moves the window from top bottom and pressing < viceversa.
The effect of the moving image is possible on the left or right side of the screen by pressing button .

7.0.6 STOP BUTTON FOR PIP IMAGE

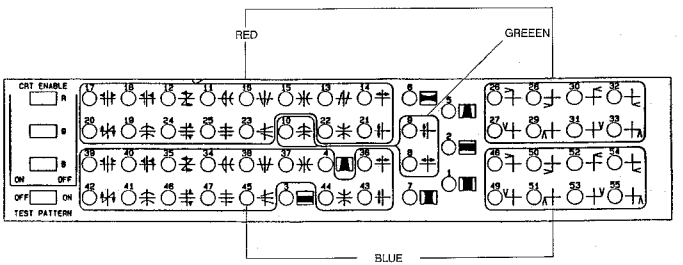
By pressing this button the image in the window is frozen. Under these conditions acting on analogue tuning (colour, brightness, contrast) you modify the full screen image only, whilst with the P.I.P in movement the same tuning modifies only on the P.I.P. image.

7.0.7 AUTOSCANNING BUTTON [B]

By pressing this button you obtain a scanning divided into 4 programmes.
This scanning presents at the centre the image trasmitted by the station, to the left the number of the programme and to the right the number of the memorized channel.
The reference of programmes/channel are represented by different colours, the same colours which are on the remote control.
To request the desired programme you can press either the relatively coloured button or the number corresponding to the number of the programme.
With the buttons + and − , it is possible to choose the group of programmes that you want to put in monitor (from 1 to 4, from 5 to 8,..... from 20 to 24).
The four images are presented one in movement and three in freeze. They are updated sequentially every 1-2 secs.

8.0 CONVERGENCE CORRECTION PANEL

The complete series of this tuning must be carried out by a competent technician, as otherwise an unalignment of the three base colours red, green and blue could occur.
Having noticed some unalignment in horizontal or vertical, you can intervene, with great attention, following the instructions of para 8.1 to para 8.2.3.
Remove the protection plate in the rear right hand side, lever open with a small screw driver in the groove.
Underneath will appear a series of holes as the diagram below:



The holes correspond to regulation dials, in which you can intervene with a small hexagonal screw driver. Beside each hole there is a symbol of the corrections. Three coloured panels indicate the dials dedicated to the colours to which they appertain. The correction dials not within the three separately coloured panels relate to correction of the 3 colours simultaneously.
The purpose of the tuning is to obtain the perfect overlap of red, green and blue, creating the final colour white.
The tuning is made keeping the green as reference, then inserting the red and finally the blue.

8.1 SWITCH-ON (ENABLING TEST SIGNAL)

Request the correct programme by pressing button 0 twice, on display will appear PA2, move the deviator marked TEST PATTERN towards ON. On the screen will appear a grid and 2 small courtesy lights will come on to illuminate the panel.
Move deviator B (in the CRT ENABLE panel) towards OFF and the green and red will remain switched on.
Reduce the brightness and contrast as much as possible in order not to damage the projection tube with a fixed image for a prolonged time.
Check to see if the Red grid crosses over the green. Tune the dial which corresponds to no. 14 of the diagram to move the red rid horizontally and/or no. 21 for vertical movement.
Move deviator B towards ON. Check to see if the blue crosses over. In that case tune the dials corresponding to no. 36 (horizontal) and/or no. 43 (vertical) of the diagram.
If the alignment has been correctly executed the grids should appear white.
Move the test pattern deviator towards OFF. The grid and courtesy lights will disappear. Leave the programme 00 by requesting another programme. Bring back the brightness and contrast to their previous level by pressing button on the remote control.

8.2 GENERAL TUNING. (TO BE MADE BY A COMPETENT TECHNICIAN)

Request programme 00 (the display will show PA 2) and insert the grid as per instructions of para. 8.2.
Disengage deviators R and B by pushing them towards OFF to leave switched on the green only.
Bring ALL the commands to their central positions, signaled by a small clik.
The most logical tuning order is set out and identified by the progressive numbers marked on the diagram.

8.2.1 CORRECTION OF COLOUR GREEN

P1 corrects the total width in horizontal.

P2 corrects the total width in vertical.

P3 regulates vertical linearity: the small rectangles must all be equal.

P4 makes vertical lines parallel.

P5 must be at central position. Use P5 to tune, if on P4 it is not sufficient to make vertical lines parallel.

P6 corrects the pillow effect North/South.

P7 corrects the pillow effect West/East.

NOTE:
Avoid touching the dials in the green panel, which however have the following functions:

P8 Movement of all (green) picture in horizontal.

P9 Movement of all (green) picture in vertical.

P10 Correction of parabola at the centre, in horizontal (green).

8.2.2 CORRECTION OF RED COLOUR IN RESPECT OF GREEN.

Place the deviator R to ON (G is also at ON).

Correction of vertical Red line

P11 Parabola at centre in vertical

P12 Rotation at centre

P13 Vertical inclination

P14 Horizontal phase

P15 External parabola

P16 Vertical trapezium

P17 Horizontal width

P18 Horizontal symmetry. If necessary retune P14.

Correction of horizonta Red line

P19 Parabola at centre

P20 Rotation at centre

P21 Vertical phase

P22 External parabola

P23 Horizontal trapezium

P24 Vertical width R

P25 Vertical symmetry. If necessary retune P21.

Regulation of the extreme corners at the 4 quadrants of Red.

P26 Vertical lines of the corner at the top left quadrant

P27 Horizontal lines of the corner at the top left quadrant

P28 Vertical lines of the corner at the left lower quadrant

P29 Horizontal lines of the corner at the left lower quadrant

P30 Vertical lines of the corner at the right top quadrant

P31 Horizontal lines of the corner at the right top quadrant

P32 Vertical lines of the corner at the right lower quadrant

P33 Horizontal lines of the corner at the right lower quadrant

8.2.3 Correction of colour BLUE in respect to Green and Red

Move deviator B to ON. The final result of the operation should be a white grid.

Correction of vertical Blue line

P34 Parabola at centre

P35 Rotation at centre

P36 Horizontal phase

P37 External parabola

P38 Vertical trapezium

P39 Horizontal width

P40 Horizontal symmetry. If necessary retune P36

Correction of horizontal Blue line

P41 Parabola at centre

P42 Rotation at centre

P43 Vertical phase

P44 External parabola

P45 Horizontal trapezium

P46 Vertical width

P47 Vertical symmetry. If necessary retune P43.

Regulation of the extreme corners at the 4 quadrants of Blue

P48 Vertical lines of the corner at the top left quadrant

P49 Horizontal lines of the corner at the top left quadrant

P50 Vertical lines of the corner at the lower left quadrant

P51 Horizontal lines of the corner at the lower left quadrant

P52 Vertical lines of the corner at the top right quadrant

P53 Horizontal lines of the corner at the top right quadrant

P54 Vertical lines of the corner at the lower right quadrant

P55 Horizontal lines of the corner at the lower right quadrant

At the end of the tuning the grid must appear perfectly uniform and white, without any line crossing over.
Position the Test Pattern deviator to OFF: the grid and courtesy light will disappear.
Replace the protection plate.
Leave the programme 00 by requesting another programme with a complete image. Check the restored values of brightness and contrast by pressing button on the remote control.

EUROCONNECTOR 1 SPECIFICATIONS (TYPE EN 050049)

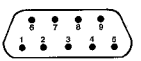
Contact	Functions	Technical data
1. Audio output	Right stereo channel (R) independent channel B	0,5 Vrms/1 kohm
2. Audio input	right stereo channel (R) independent channel B	0,5 Vrms/10 kohm
3. Audio output	mono left stereo channel (L) independent channel A	0,5 Vrms/1 kokm
4. Audio earth connection		
5. Blue signal eart connection		
6. Audio input	mono left stereo channel (L) independent channel A	0,5 Vrms/10 kohm
7. Blue input		0,7V +/– 3 dB 75 ohm
8. Switching voltage	television reception Euroconnector	0,2 V 9,5/12 V
9. Green signal eart connection		
10. Not connected		
11. Green input		0,7V +/– 3 dB 75 ohm
12. Not connected		
13. Red signal earth connection		
14. Not connected		
15. Red input or C (S-VHS)		0,7V +/– 3 dB 75 ohm 0,3 Vpp (S-VHS)
16. Blanking input	abilitated not abilitated	0/0,4 V 75 ohm 1/3 V 75 ohm
17. Video signal earth connection		
18. Blaning eart connection		
19. Video output		1 Vpp/ 75 ohm
20. Video input or Y (S-VHS)		1 Vpp/ 75 ohm
21. Screen earth or common return		

EUROCONNECTOR 2 SPECIFICATIONS

Contact	Functions	Technical data
1. Audio output (from scart 1)	Right stereo channel (R) independent channel B	0,5 Vrms/1 kohm
2. Audio input	right stereo channel (R) independent channel B	0,5 Vrms/10 kohm
3. Audio output (from scart 1)	mono left stereo channel (L) independent channel A	0,5 Vrms/1 kokm
4. Audio earth connection		
5. Blue signal eart connection		
6. Audio input	mono left stereo channel (L) independent channel A	0,5 Vrms/10 kohm
7. Not connected		
8. Switching voltage	television reception Euroconnector	0,2 V 9,5/12 V
9. Not connected		
10. Not connected		
11. Not connected		
12. Not connected		
13. Not connected		
14. Not connected		
15. Not connected		
16. Not connected		
17. Video signal earth connection		
18. Not connected		
19. Video output (from scart 1)		1 Vpp/ 75 ohm
20. Video input		1 Vpp/ 75 ohm
21. Screen earth or common return		

DIAGRAM OF CANON INPUT CONNECTIONS

1. Ground
2. Ground
3. Red *
4. Green *
5. Blue *
6. Intensity *
7. N.C.
8. Horiz. sync **
9. Vert. sync **



* Accept signal input a TTL level

** Accept signal input positive or negative TTL level

9.0 TECHNICAL CHARACTERISTICS

9.0.1 PROJECTION

- Type of projection: front or rear projection
- Projection tubes: 3 Toshiba tubes of 7" 70° high resolution. Liquid cooled, average duration of more than 9.000 hrs.
- Lenses: 3 DELTA TAC 3 bifocal lenses, air cooled, at high resolution, chemically treated surface for colour correction and the main lense in quartz glass.
- Brightness: 680 Lumen weighted at white peak.
- Video Definition: Video composite ≥ 400 Television lines (with super VHS signals)
  RGB signals 1000 Television lines (compatible with TTL output CGA Personal Computer 2000 characters resolution, 25 lines per 80 columns).
  TTL Input 650 Television lines (compatible with CGA Personal Computer output).
- Projection dimensions: continuously variable from a minimum of 1.22 m at base to a maxinun of 5.08 m, corrsponding to 60" - 250" diagonal.
- Distance between videoprojector and screen: 1.5 times the width of the base of the screen.
- installation: either floor or celling mounted with anchorage laterally at the centre.

9.0.2 ELECTRONICS

- Colour system: PAL, SECAM, B-G in radio frequency. Four standards (PAL, SECAM, NTSC 4.43, NTSC 3.58) in low frequency.
- Tuning: digital frequency synthesizer tuner
- Personalization of the brightness level, colour and fine tuning saturation of all of the memorizable 30 programmes (Personal Memo).
- Normalization of the brightness level saturation of colour, volume and contrast to a prefixed optimal valve (normalized)
- Remote control complete with all functions, T.V., Teletext, and regulation of stereo sound and direction of the PIP.
- Teletext incoporated with automatic memorization of the pages successive to the one called (8 pages in memory) reception in 8 languages.
- ON SCREEN DISPLAY, temporary indication on the screen, in the form of characters and graphics, of the function and regulation activated.
- Capacity to receive transmission via cable (CAVT)
- Programme n° 26 assigned to input FBAS with NTSC 443 (NT2) standard.
- Programme n° 27 abilitates input of SCART 1 with super VHS signals of more than 400 T.V. lines.
- Programme n° 28 dedicated to RGB input (BNC input, SCART socket or CANNON connector) with automatic frequence commutation of 50 Hz ÷ 60 Hz.
- Programme n° 29 is assigned the VCR input in Radio Frequency. (costant speed).
- Programme n° 0 (PA1/PA2 interchangeable with Remote control) for FABS input with PAL, SECAM and NTSC 3.58 (NT1) standars.
- Prepared for attachment of PIP KSD 90 board which allows the viewing of more than one image on the same screen.

9.0.3 AUDIO

- Stereophonic sound with incorporated amplifier
- Audio output power 2 x 20 Watt P.M. P.O. (from 8 ohm. Loud speaker)
- QPT tuner (Quasi parallel tone)
- Panoramic sound (enlargement of the acustic base of the stereophonic signals).
- Bilingual audio (possibie to select on the loudspeakers the principle or secondary language).

9.0.4 INSTALLATION AND CONVERGENCE

- Test signal activated from built in cross-hatch generator.
- Mechanical preregulation of the groups (CRT + LENSE) of Red, Blue and Green and electronic regulation of the three colours.
- 7 master regulations common to the three colours.
- 32 dynamic convergence regulations for Red and Blue.
- 16 dynamic convergence regualtion on the four cornes for Red and Blue.
- Adjustable trapezium correction for a maximum inclination of the videoprojector upto 20°, in respect to the centre of the screen.

NOTE:
Illumination of the convergence regulation area is automatic with the activation of the test signal, to make tuning possible in low light.

9.0.5 INPUT/OUTPUT

- RF 75 ohm aerial
- Two SCART sockets for the connection of peripheral equipment with video output FBAS (video composite), as VCR home computer, video games, video camera, etc., with automatic commutation from the remote control.
- Super VHS input signals via SCART socket 1 or BNC
- RGB input signals via SCART socket 1 or BNC
- 9 pin CANON connector for RGB of TTL TYPE with positive or negative sycronism and INTENSITY command. (Possibility of obtaining reproduction of normal colour or Hi Light).
- 5 inputs on BNC for RGB analogue signal with negative sycronism of FBAS, FAST BLANKING input for speedy switch over.
- Possible input of Super VHS signals via BNC connectors
- Output connector for external loud speader (L + R)

9.0.6 GENERAL

- Tuning
  Eletronic with frequency synthesis and direct selection of 100 channels.
- Reception bands ★
  - Band I 47 ÷ 68 MHz
  - C channel 81 ÷ 88 MHz
  - Band III 174 ÷ 230 MHz
  - Band IV-V 470 ÷ 867 MHz

This product is equipped with a sound muting circuit during the tuning search.

- Intermediate frequency ☆
  - Sound carrier 33,4 MHz
  - Video carrier 38,9 MHz
- Remote control
  Infra-red ray type
- Aerial socket
  Single 75 ohm aerial socket type Din 45325/2 for both VHF/UHF
- Power: 220 V ± 10% 50/60 Hz ✯
- Consumes: 170 W max.
- Deflection: vertical 50/60 Hz - 5 Hz automatic commutation, horizontal 15625 Hz ± 800 Hz
- Weight: 30 Kg approx. (with bracket)
- Operative functioning conditions: temperature between 0°C and 35°C, relative humidity from 0 - 90%.

NOTE:
- Tube/Lenses are hermetically sealed together, therefore cleaning maintenace of the dust which would normally deposite on the lenses is not necessary.
- The there RGB video inputs (via SCART socket from CANNON and BNC connectors) are connected in parallel, therefore it is not possible to connect to more than one RGB signal source simultaneously to the Videoprojector.
- The Videoprojector is equipped with two remote control receivers, one in the front, one in the back, connected in parallel.
  It is therefore possible to control the videoprojector in both floor and ceiling installation and if it is necessary it is possible to install a third receiver wire connected, with a length of between 100-150 m (optional).

★ For UK only IV and V bands
☆ For UK sound carrier 33,5 MHz
✯ For UK 240 ± 10% 50/60 Mz

The appliance is manufactured respecting the law:
- directive EEC 73/23 relating to safety.
- directive EEC 82/449 relating to Radio disturbance.